

***Castilleja levisecta* Greenm.**
golden paintbrush
Scrophulariaceae (Figwort Family)

Status: State Endangered, USFWS Threatened
Rank: G1S1

General Description: A perennial herb, often with 5-15 unbranched stems. Stems may be erect to spreading, in the latter case giving the appearance of being several plants, especially in tall grass. Plants up to 20 inches tall and covered with soft, somewhat sticky hairs. The lower leaves are broader and mostly with 1-3 pairs of short lateral lobes near the distal third of the blade. Showy bracts are about the same width as the upper leaves, softly hairy and sticky, and are golden yellow. The flowers are mostly hidden by bracts.

Identification Tips: Not likely to be confused with any other species of *Castilleja* occurring in the Puget Trough, with the possible exception of an occasional yellow-flowered *Castilleja hispida*.

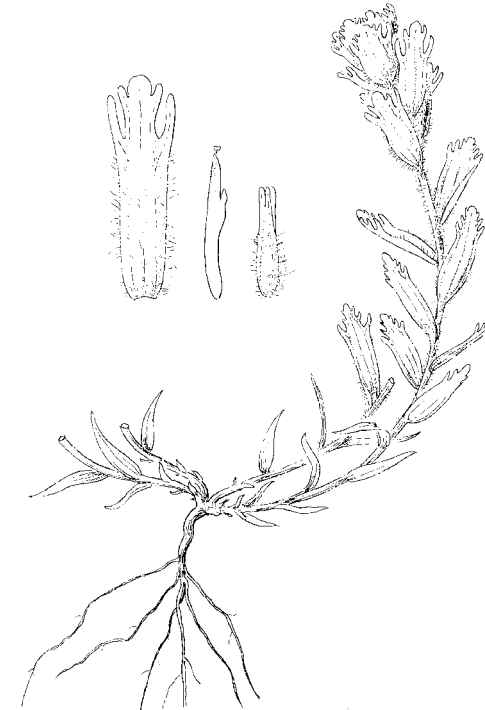
Phenology: Flowering generally begins during the last week in April and continues until July. Seed capsules will persist on the plant well beyond the growing season.

Range: The taxon is a regional endemic with a historic range west of the Cascade Mountain Range from the southern tip of Vancouver Island, Canada to Linn County, Oregon. In Washington, the species occurs in the Puget Trough physiographic province. The taxon is believed to be extirpated from the Willamette Valley physiographic province of Oregon. The southern-most extant occurrence of *C. levisecta* is in Thurston County, Washington.

Habitat: The species occurs in open grasslands in the Puget Trough. The substrate is generally composed of glacial outwash or depositional material. The species prefers sun, can tolerate partial shade, but will not tolerate a closed canopy. The most common associate is, depending on the site, variously Idaho fescue (*Festuca idahoensis*) or red fescue (*Festuca rubra*). Many weedy species also occur in the habitat, as most of these areas have suffered from past disturbances. Elevation: 10 to 300 feet.

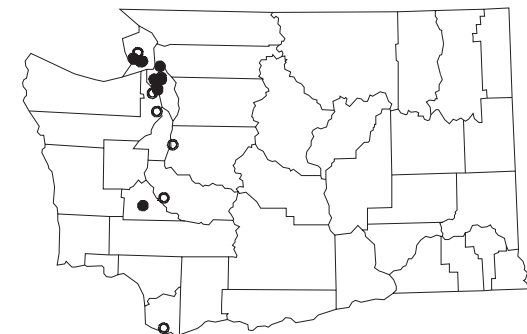
Ecology: Many species of the genus *Castilleja* are known to be facultative hemiparasites; it is not known to what degree, if any, *C. levisecta* shares this characteristic. Fire is thought to have

Castilleja levisecta
golden paintbrush



©1959 University of Washington Press. Illustration by Jeanne R. Janish.

Known distribution of
Castilleja levisecta
in Washington



● Current (1980+)
○ Historic (older than 1980)

Castilleja levisecta

golden paintbrush



Mark Sheehan



Reid Schuller

Castilleja levisecta

golden paintbrush

Ecology (continued): historically played a key role in the maintenance of the open prairie habitats occupied by this species.

State Status Comments: The taxon is a rare regional endemic now extirpated from many of its historic localities and currently known only from 10 sites in Washington and two in British Columbia.

Inventory Needs: Additional inventory efforts should focus on the southern portion of Vancouver Island, the Gulf Islands, the smaller San Juan Islands, and isolated prairie remnants in lowland western Washington.

Threats and Management Concerns: Invasion of the species' habitat by Douglas fir and the non-native Scot's broom pose immediate threats at several sites. An increasing cover of native shrubs is also of concern at some sites. Prescribed fire and manual removal of competing vegetation are methods which should be considered. Trampling and herbivory are also concerns at some sites.

Comments: The small number of remaining populations, the invasion of the species' habitat by both native and non-native plant competitors, and the pressures of an increasing human population have resulted in *C. levisecta* being one of our state's most endangered species. All known sites need ongoing protection efforts.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest, Part 4: Ericaceae through Campanulaceae*. University of Washington Press, Seattle. 510 pp.

Pojar, J. and A. MacKinnon. 1994. *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska*. B.C. Forest Service, Research Program. Lone Pine Publishing, Vancouver, B.C. 527 pp.